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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,953	10/25/2001	Toshikazu Kobayashi	100809-00051 (SCET 19,104	8865
26304	7590	06/17/2004	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585			PATEL, GAUTAM	
			ART UNIT	PAPER NUMBER
			2655	
			DATE MAILED: 06/17/2004	

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/001,953

Applicant(s)

KOBAYASHI, TOSHIKAZU

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-2, and 4-6 are pending for the examination.

### RCE STATUS

2. The request filed on 4-26-04 for Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application is acceptable and a RCE has been established. An action on the RCE follows.

### *Claim Rejections - 35 U.S.C. § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nagata et al., US. patent 5,481,526 (hereafter Nagata).

As to claim 4, Nagata discloses the invention as claimed [see Figs. 1-18, especially 13] including means for obtaining an intermediate value, and means for turning on a focus servo, comprising:

means for obtaining an intermediate value [fig. 13, unit 273] from a maximum value and a minimum value of a focus error signal which corresponds to defocusing of the objective lens, and which is generated by a certain one of the recorded layers [col. 14, lines 3-67]; and

means for turning on a focus servo [fig. 13, unit 270] which pulls in a focus of said objective lens, with a bias at which the focus error signal corresponds to the intermediate value, in case of the layer jump to the recorded layer [col. 14, lines 3-67].

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NOTE: Nagata disclose that his system works with different kind of optical disks, which inherently presents different recording layers [col. 1, line 62 to col. 2, line 6 and col. 10, line 61 to col. 11, line 5].

4. As to claim 5, it is drawn to a method corresponding to the apparatus of claim 4, is rejected for similar reasons set forth in the rejection of claim 4, supra

### **Claim Rejections - 35 U.S.C. § 103**

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ichimura et al., US. patent 6,097,688 (hereafter Ichimura) in view of Nagata et al., US. patent 5,481,526 (hereafter Nagata) as applied to claims 4 and 5 above.

As to claim 1, Ichimura discloses the invention as claimed [see Figs. 1-9, especially 1, 2 and 9], including focus drive means, photo-detection means, focus-error-signal generation means, recorded-layer movement control means, focus pull-in means and intermediate value, comprising:

focus drive means [fig. 1, unit 6 and 7] for moving the objective lens in a direction orthogonal to the recorded layers of the optical disk [col. 3, line 51 to col. 4, line 12];

photodetection means [fig. 3, unit 74 and 77] for detecting reflected light from said optical disk [col. 6, lines 9-38];

focus-error-signal generation means [fig. 2, unit 33] for generating a focus error signal which corresponds to defocusing of said objective lens relative to any of said

recorded layers of said optical disk, on the basis of a detection signal of said photodetection means [col. 5, line 37 to col. 6, line 8];

recorded-layer movement control means [fig. 2, unit 40] for generating a signal which controls said focus drive means, on the basis of the error signal, in order to move said objective lens on the recorded layer which is an objective of said objective lens [col. 5, line 37 to col. 6, line 8]; and.

focus pull-in means [fig. 1-2, units 6 & 7, part of unit 31] for pulling in the focus of said objective lens onto said recorded layer on which said objective lens is to be focused, said pull-in means being permitted to switch on and off by said recorded-layer movement control means [col. 5, line 45 to col. 6, line 8 and col. 9, lines 21-63];

Ichimura discloses all of the above elements, including recorded-layer movement control means, focus pull-in means and generating focus error signal intermediate value which is between maximum and minimum values [col. 9, lines 21-63 and col. 10, lines 20-60]. Ichimura does not specifically disclose details of intermediate value generation or that it is generated automatically from these MIN-MAX values to the extent claimed.

However, generation of intermediate values from min-max values has been well known in the art for a long time. Also Nagata clearly discloses:

calculating an intermediate value from a maximum value and a minimum value of said focus error signal corresponding to said recorded layer [col. 14, lines 20-67 and fig. 13]; and

in case of moving the focused position of said objective lens to said recorded layer, said focus pull-in means for performing an automatic adjustment [fig. 13, unit 270] of focus bias is turned on when said focus error signal has corresponded to the intermediate value [col. 14, lines 20-67 and fig. 13].

Both Ichimura and Nagata are interested in improving the focus adjustment of the objective lens. Both Ichimura and Nagata show automatic control of various systems and also focus and servo control and max-min values of focus error.

One of ordinary skill in the art at the time of invention would have realized that the different kind of optical disks or same disk with different layers would increase focus error and/or tracking error and it would be necessary to reduce this increase in the

errors. Also aging of the disk may cause deviation of the focus and focus needs to be adjusted.

Therefore, it would have been obvious to have used a focus adjusting section, for calculating intermediate value, in the system of Ichimura as taught by Nagata because one would be motivated to reduce the focus deviation due to any cause and increase S/N ration for higher reliability in the system of Ichimura and provide better signal controls and improve quality of the signal to noise ratio [col. 2, lines 45-55; Nagata].

NOTE: Ichimura discloses most of the description with respect movement of these lenses with respect to single surface. However, it is equally applicable to beam movement from layer to layer as disclosed by Ichimura [col. 10, line 61 to col. 11, line 4].

6. The aforementioned claim 2, recites the following elements, inter alia, disclosed in Ichimura.

An optical disk playback system [fig. 2] comprising the focus control apparatus [fig. 3] [col. 5, line 37 to col 6, line 62], including:

focus drive means [fig. 1, unit 6 and 7] for moving the objective lens in a direction orthogonal to the recorded layers of the optical disk [col. 3, line 51 to col. 4, line 12];

photodetection means [fig. 3, unit 74 and 77] for detecting reflected light from said optical disk [col. 6, lines 9-38];

focus-error-signal generation means [fig. 2, unit 33] for generating a focus error signal which corresponds to defocusing of said objective lens relative to any of said recorded layers of said optical disk, on the basis of a detection signal of said photodetection means [col. 5, line 37 to col. 6, line 8];

recorded-layer movement control means [fig. 2, unit 40] for generating a signal which controls said focus drive means, on the basis of the error signal, in order to move said objective lens on the recorded layer which is an objective of said objective lens [col. 5, line 37 to col. 6, line 8]; and.

focus pull-in means [fig. 1-2, units 6 & 7, part of unit 31] for pulling in the focus of said objective lens onto said recorded layer on which said objective lens is to be focused, said pull-in means being permitted to switch on and off by said recorded-layer movement control means [col. 5, line 45 to col. 6, line 8 and col. 9, lines 21-63];

Ichimura discloses all of the above elements, including recorded-layer movement control means, focus pull-in means and generating focus error signal intermediate value which is between maximum and minimum values [col. 9, lines 21-63 and col. 10, lines 20-60]. Ichimura does not specifically disclose details of intermediate value generation or that it is generated automatically from these MIN-MAX values to the extent claimed. And Ichimura does not disclose that the focus bias when disk is reproduced this focus bias is automatically adjusted.

However, generation of intermediate values from min-max values, and adjusting parameters for different type of disks to be used in a single optical disk apparatus has been well known in the art for a long time [col. 1, lines 62 to col. 2, line 6; Nagata]. Also Nagata clearly discloses:

calculating an intermediate value from a maximum value and a minimum value of said focus error signal corresponding to said recorded layer [col. 14, lines 3-67]; and

in case of moving the focused position of said objective lens to said recorded layer, said focus pull-in means for performing an automatic adjustment [fig. 13, unit 270] of focus bias is turned on when said focus error signal has corresponded to the intermediate value, in advance of playback [units 273 and 274 performs this function] of optical disk [col. 14, lines 3-67]; and

recording layer movement control is performed by using focus bias value obtained by the automatic adjustment of focus bias when optical disk is reproduced [col. 2, lines 45-55 and col. 14, lines 3-67].

Both Ichimura and Nagata are interested in improving the focus adjustment of the objective lens. Both Ichimura and Nagata show automatic control of various systems and also focus and servo control and max-min values of focus error. Both disclose that their system can be used with different layers and/or different disks.

One of ordinary skill in the art at the time of invention would have realized that the different kind of optical disks or same disk with different layers would increase focus error and/or tracking error and it would be necessary to reduce this increase in the errors. Also aging of the disk may cause deviation of the focus and focus needs to be adjusted.

Therefore, it would have been obvious to have used a focus adjusting section, for calculating intermediate value, in the system of Ichimura as taught by Nagata because one would be motivated to reduce the focus deviation due to any internal or external cause and increase S/N ration for higher reliability in the system of Ichimura and provide better signal controls and improve quality of the signal to noise ratio [col. 1, line 62 to col. 2, line 6 and col. 2, lines 45-55; Nagata].

NOTE: Ichimura discloses most of the description with respect movement of these lenses with respect to single surface. However, it is equally applicable to beam movement from layer to layer as disclosed by Ichimura [col. 10, line 61 to col. 11, line 4].

7. As to claim 6, it is claim corresponding to the apparatus of claims 2 and 4, and is rejected for similar reasons set forth in the rejection of claims 2 and 4, supra. As to the added limitation of a program product:

"Official Notice" is taken that both the concept and the advantages of providing a program on a disc are well known and expected in the art. It would have been obvious to include store the program on a disc to the system of Ichimura as this stored programs on the disc are known to provide the flexibility to transport the program from one computer to another and also save the program separately so in case of computer crash program does not get destroyed and thereby saving time and money. These concepts are well known in the art and do not constitute a patentably distinct limitation, per se [M.P.E.P. 2144.03].



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8. Applicant's arguments with respect to claims 1-2 and 4-6 have been considered but are moot in view of the new grounds of rejection.

**Contact Information**

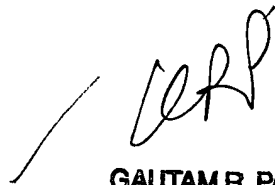
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.

Gautam R. Patel  
Primary Examiner  
Group Art Unit 2655



**GAUTAM R. PATEL**  
**PRIMARY EXAMINER**

June 12, 2004